

Virtual Site Visit at Bhola Municipality for Vertical Extension of Kitchen Market

Objectives: Monitoring of environmental facilities as agreed in approved Environmental Assessment Report of Bhola Municipality

Tools used for monitoring: WhatsApp video call, individual discussion with SE-BMDF over mobile phone

Participants: Supervision Engineer (BMDF) and Sub-Assistant Engineer, Bhola Municipality at site.

Name of Sub-Project	Proposed environmental infrastructure	Present status	Comments
Construction of Kitchen Market at Bhola	Labor shed (male/female)	There is no designated labor shed for Bhola vertical extension of kitchen market. Initially the Contractor arranged accommodation for labors in his own under construction building. Later the Contractor shifted all labors from own building to vertical extension market at 2 nd floor in vacant shop spaces.	As per Environmental Assessment report and EMP, there are fund allocation for labor sheds and basic facilities. But the Contractor of Bhola vertical extension market did not constructed any separate accommodation/ facilities for labors. Hence, careful decision to be taken during final bill payment.
	Safe water supply,(labor shed)	There is a submergible tube well at the Contractor's building from which water were supplied. In addition water jar also found during our field visit.	The overall water supply and water dispensing method was not satisfactory in the so called labor shed.
	Toilet (male/female)(labor shed)	There are male toilets for labors in the contractor's building. After few days, the labors have been shifted to vertical extension building in vacant shops and they use toilets which are constructed for the market users. Through virtual field visit, it has found that no labor stay at night in the market.	The vacant shop is without door and window which is not fit to live for a human because of lacking ventilation facilities.
	Toilet (male/female)(Building)	There are toilets for male, female and disabled people.	Finishing and marking of gender based and disabled people's toilets have not been

			finished yet. Finishing works are going on.
	Septic tank	There was an old septic tank which was made considering the volume of waste generated from existing building. No septic tank has been constructed for extended portion.	As user will be increased during full use of the kitchen market and there are possibility of over flow of waste water from the septic tank. Hence, close monitoring is needed and make it clean with short interval when necessary.
	Soak well	One soak well is there which was constructed for waste water discharge from septic tank	As per information of SE-BMDF, Bhola that the waste water from floor cleaning, toilet cleaning will discharge ultimately to storm water drain which is not acceptable from environmental ground. Moreover, there is a slaughter house in this market from where different kind of toxic liquid and solid waste will generate. Separate soak well need for waste water accumulation from floors, slaughter house, toilet and basins. Bhola Municipality should immediately mitigate this waste water discharge into separate soak well without discharging into municipal drain.
	Disabled toilets	There are provision of disable toilets in the market.	Disable toilets provisions have been kept at 2 nd and 3 rd floors. All are under finishing stages.
	Ramp	There is a ramp at ground floor for disabled, elderly people.	The ramp has been constructed during ground floor construction earlier.
	Safe water supply (Building)	Municipal water supply already available at the old building, water source will be from the same source of the total building.	Municipal water supply line are available at the building.
	Washing Point	As per drawing there are washing points at ear marked areas.	Like other work, it is also under completion.

	Janitors closet	Janitor's location not yet settled.	The location will be fixed after completion of all construction and finishing works.
	Fire protection	Provision of fire protections have been designed.	Fire protection equipment will be fixed after finishing of work.
	Solid and Waste water management	As per design and Environmental Management Plan, there will have brick bin outside the building for dumping daily waste generated from each floor.	There was no secondary bin for solid waste disposal outside the existing building. Presently the Municipality collect bin from market place, dump in front of the market at open area and then carry by Municipal truck to the Municipal dumping area. In the Environmental Assessment Report submitted by Bhola Municipality affirmed that they will dump the daily solid waste in to the kitchen market secondary dumping bin but there is no existing bin or waste management system. Strong message has given to SAE, Bhola Municipality who was representing the team during virtual site visit at the Market.

Environmental threat:

- After completion of vertical extension of Bhola kitchen market, volume of solid waste and waste water generation including wastage from slaughter house will increase and worsen the environment of front side of the market.
- Presently the market authority is illegally discharging waste water in to municipal drain. Volume of wastage will increase during operation of vertical extension market which will pollute surface water at out fall of the drain.
- There is no soak well for new septic tank where there is possibility of over flow of waste water in future and the septic tank will be filled earlier than the calculation time.
- As other sensitive items like fire protection, toilets, waste collection procedure etc. have not been finalized/completed which are important environmental parameters and related with WB environmental compliance.

Environmental Parameter (Air, Noise) analysis of Bhola Kitchen Market Vertical Extension.

Environmental parameter like air quality and noise level has been deteriorated from the baseline to construction phase. There is no big industries, insignificant number of motorized vehicles and moderate number of construction works in comparison with other big Cities, as a result no environmental parameters have been crossed the Bangladesh standard environmental parameters except PM10. The reason of higher quantity of PM10 may be the construction work's materials like brick breaking, sand screening and further adding kitchen market particulates during market periods. The data collection of completion phase has yet not been captured. So, comparison has been made between baseline and construction phases. It has to be monitored that the status of environmental parameter after completion of construction works. If the air quality do not return to it's baseline form then mitigation measures like water spray, smoke emissions from vehicle, equipment and solid waste management have to be improved.

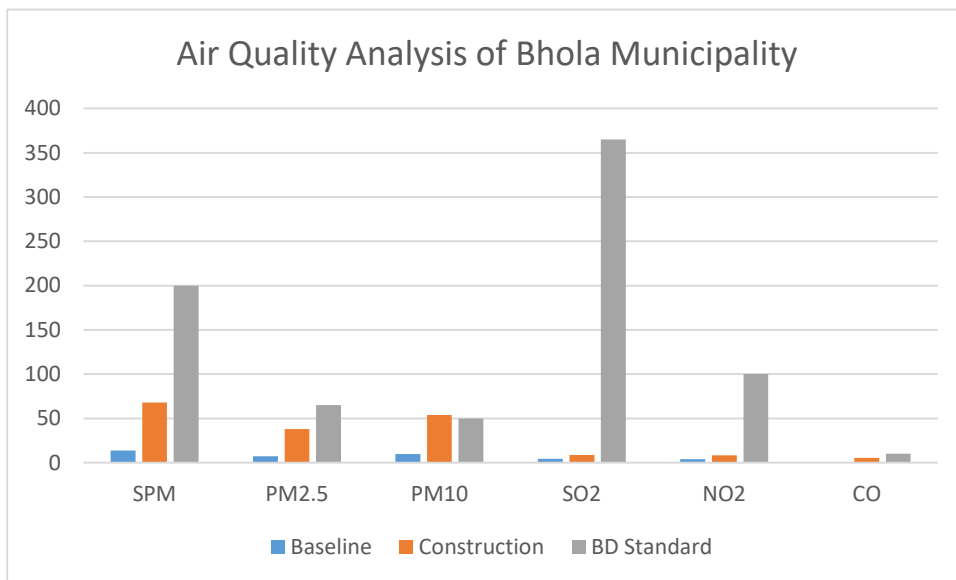


Figure: 1

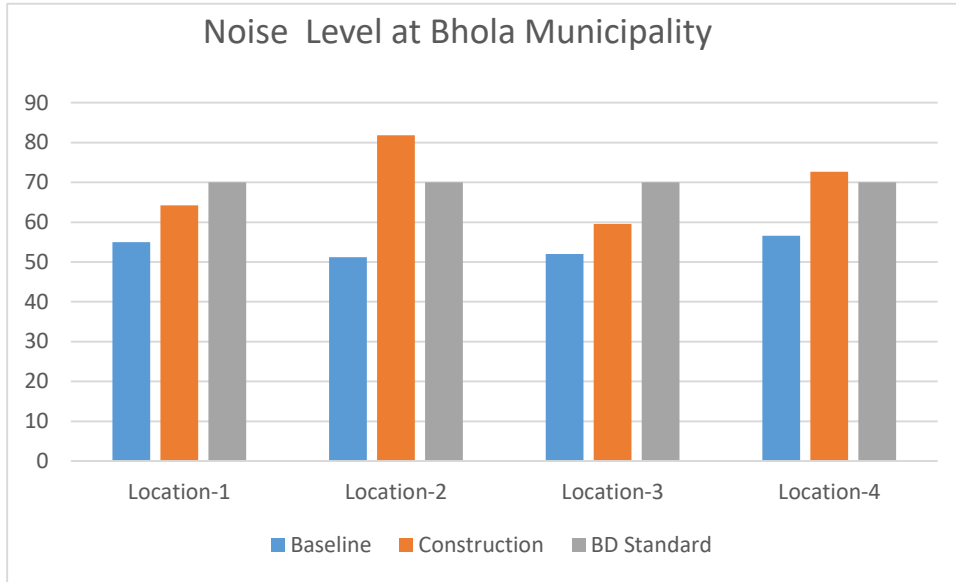


Figure: 2

The above figure shows the comparison between baseline and construction phase noise level at site. There are four locations at four corners of the Bhola kitchen market. At locations 1 and 3 construction level noise levels are less than Bangladesh Standard noise level parameter whereas location 2 and 4 noise levels at construction phase are higher than the Bangladesh Standard noise level parameter. The noise levels at locations 2 and 4 are located at the front side of the market where gathering of visitors, construction materials and motorized vehicles, as a result noise level at construction period are higher than Bangladesh Standard noise level.

For noise control, horn, noise from vehicles, mechanized and non-mechanized vehicles parking system have to be controlled through awareness, engaging community police and fixing signboards at strategic points in front of the Market.

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